

## CLAIMS

1. A method for forming large-dimension ceramic tiles, comprising the following operative stages:
  - a. feeding a determined quantity of powders into the mould cavity of a first pressing station,
  - b. pressing said quantity of powders to obtain a slab of consistent material the thickness of which is reduced by a quantity between 20 and 40%,
  - c. feeding said slab to at least one decorating station, which controlledly deposits at least a second layer of powders,
  - d. feeding said decorated slab to a second pressing station,
  - e. pressing the decorated slab.
2. A method as claimed in claim 1, characterised in that the first pressing takes place at a pressure preferably between 50 and 100 kg/cm<sup>2</sup>.
3. A method as claimed in claim 1, characterised in that said second pressing takes place at a pressure preferably between 300 and 500 kg/cm<sup>2</sup>.
4. A method as claimed in claim 1, characterised by adjusting the orientation of said slab relative to its direction of advancement.
5. A plant for forming large-dimension ceramic tiles, comprising:
  - a. a station for precompacting powders to create a consistent slab,
  - b. means for feeding said slab to at least one decorating station provided with means to deposit a determined quantity of powders onto said slab in a controlled manner, and

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c. a pressing station for said decorated slab,  
characterised in that between said decorating station and said second  
pressing station there is provided a feeder device which makes the  
operating rate of the first part of the line as far as said at least one  
5 decorating station independent of the operating rate of the second  
pressing station.

6. A plant as claimed in claim 5, characterised in that said feeder  
device comprises at least two mutually independent motorized conveyor  
means (13, 14) on which the slab (3) to be pressed advances, above said  
10 means (13, 14) there being positioned a carriage (17) arranged to receive  
said slab (3), lock it in position, and bring it above the mould cavity of said  
second press (18).

7. A plant as claimed in claim 6, characterised in that the slab is  
received and locked with the aid of at least one wall (173) movable  
15 between a non-operative position in which it is distant from said slab, and  
an operative position in which it is associated with the rear edge of said  
slab in its advancement direction.

8. A plant as claimed in claim 7, characterised in that the ends of said  
movable wall are hinged to the frame of said carriage (17), the wall being  
20 associated with at least one cylinder-piston unit (177) which rotates it  
between said operative positions.

9. A plant as claimed in claim 7, characterised in that said carriage is  
provided with two identical walls (173), movable between a non-operative  
position in which they are distant from said slab, and an operative position

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in which they are associated with the front edge and, respectively, with the rear edge of said slab in its advancement direction.

10. A plant as claimed in claim 6, characterised in that said carriage is operated by a geared motor rotating a toothed belt rigid with the carriage
- 5 frame.

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